UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,986	08/28/2003	Shigenori Tomonaga	16869S-092800US	2985

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EXAMINER
SIDDIQI, MOHAMMAD A

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/652,986	TOMONAGA ET AL.
	Examiner	Art Unit
	Mohammad A. Siddiqi	2154

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>14 August 2006</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1,3-5,7-9, and 11 -15</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1,3-5,7-9, and 11 -15</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1, 3-5, 7-9, and 11-15 are presented for examination. Claims

2, 6, and 10 have been cancelled.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in

this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by
> another filed in the United States before the invention thereof by the applicant for patent,
> or on an international application by another who has fulfilled the requirements of
> paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by
> the applicant for patent.

3.   Claims 1, 3-5, 7-9, and 11-12 are rejected under 35 U.S.C. 102(e) as

being anticipated by Yanai et al. (6,502,205) (hereinafter Yanai).

4.   As per claim 1, Yanai discloses a computer-readable storage medium

having a program for use in a host computer (212, fig 4) having a function

of displaying at a user interface a plurality of management information items

expressing access status (user interface provides configuring and monitoring

capabilities, col 12, lines 56-67 and col 13, lines 1-6) of a communication

path for sending a data input/output request from said host computer (212,

fig 4) to a storage device and returning result of the access request to said

host computer , said storage device (20, 48, fig 1) having a plurality of disk

drives (22a, 22b, fig 1) storing data sent from said host computer (212 , fig

4) and a disk controller (16, 44, fig 1) controlling to store data sent from

said host computer to at least one logical volume corresponding to the

plurality of disk drives said communication path (40, fig 1) providing

communication between a host port of said information processing device

(elements of fig 1), a disk controller port of said disk controller, a

communication cable connecting between said host.port and said disk

controller port, and a logical volume of said storage device (user interface

provides configuring and monitoring capabilities, col 8, lines 18-23; col 12,

lines 56-67; col 13, lines 1-6), said program comprising:

code for updating at least one of said management information items

being displayed to express present access status of said communication path

when detecting that access failure occurs (col 15, lines 42-54) at said

communication path based on an access to said storage device (status

access, col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6), and/or

updating at least one of said management information items being displayed

when receiving from said user interface an input for updating said

management information items being displayed (configuring anticipates

parameters and monitoring anticipates status of the paths, col 8, lines 18-

23; col 12, lines 56-67; col 13, lines 1-6),

code for displaying information between a communication path

ID of said communication path (col 8, lines 18-23; col 12, lines 56-67; col

13, lines 1-6; col 47, lines 1-6), a disk controller port ID of said disk

controller port, a logical volume ID of said logical volume of said storage

device, and state of said communication path indicating off-line or on-line

(col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6; col 47-48, see the

parameters for displaying purpose); and

code for changing the state of said communication path (col 32,

lines13-16) in which failure has occurred among displayed plurality of

communication paths based on receiving failure information from said

storage device (col 32, lines 1-16), while a failure has occurred in any one of

said displayed plurality of communication paths (col 8, lines 18-23; col 12,

lines 56-67; col 13, lines 1-6; col 32, lines 1-16; col 47-48, see the

parameters for displaying purpose).

5.   As per claim 3, Yanai discloses in accordance with an input for

updating said management information items being displayed, all of said

management information items being displayed or part of said management

information items being displayed is updated to express present access

status of a communication path (status access, col 8, lines 18-23; col 12,

lines 56-67; col 13, lines 1-6).

6.   As per claim 4, Yanai discloses part of said management information

items to be updated includes at least one of an execution number of data

input/output as performed between said storage device and said host

computer and a number indicative of access failure occurred at said

communication path in proper execution of said data input/output (status

access, col 8, lines 18-23; col 47-52, messaging examples).

7.   As per claim 5, the claim is rejected for the same reasons as claim 1,

above.

8.   As per claim 7, the claim is rejected for the same reasons as claims 5

and 3, above.

9.   As per claim 8, the claim is rejected for the same reasons as claims 5

and 4, above.

10.   As per claim 9, the claim is rejected for the same reasons as claim 1, above.

11.   As per claim 11, the claim is rejected for the same reasons as claims 9 and 3, above.

12.   As per claim 7, the claim is rejected for the same reasons as claims 9 and 4, above.

13. As per claims 13, 14 and 15, wherein the state of said communication path is changed in real time based on receiving failure information from said storage device (dynamic sparing option, col 28, lines 40-61).

Response to Arguments

13.   Applicant's arguments filed 08/14/2006 have been fully considered but they are not persuasive, therefore rejections to claims 1,3-5,7-9, and 11 -15 is maintained.

14.   In the remarks applicants argued that:

15.   **Argument:** Yanai does not teach or suggest a host computer having a

function of displaying at a user interface a plurality of management

information items expressing access status of a communication path for

sending a data input/output request from said host computer to a storage

device and returning result of the access request to said host computer,

code for displaying information between a communication path

ID of said communication path, a disk controller port ID of said disk

controller port, a logical volume ID of said logical volume of said storage

device, and state of said communication path indicating off-line or on-line;

and code for changing the state of said communication path in which failure

has occurred among displayed plurality of communication paths based on

receiving failure information from said storage device, while a failure has

occurred in any one of said displayed plurality of communication paths.

Response: Yanai discloses a host computer (212, fig 4) having a function of

displaying at a user interface a plurality of management information items

expressing access status (user interface provides configuring and monitoring

capabilities, col 12, lines 56-67 and col 13, lines 1-6) of a communication

path for sending a data input/output request from said host computer (212,

fig 4) to a storage device and returning result of the access request to said

host computer (212, fig 4), code for displaying information between a

communication path ID of said communication path (col 8, lines 18-23; col

12, lines 56-67; col 13, lines 1-6; col 47, lines 1-6), a disk controller port ID

of said disk controller port, a logical volume ID of said logical volume of said

storage device, and state of said communication path indicating off-line or

on-line (col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6; col 47-48,

see the parameters for displaying purpose); and code for changing the state

of said communication path (col 32, lines13-16) in which failure has

occurred among displayed plurality of communication paths based on

receiving failure information from said storage device (col 32, lines 1-16),

while a failure has occurred in any one of said displayed plurality of

communication paths (col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-

6; col 32, lines 1-16; col 47-48, see the parameters for displaying purpose).

Conclusion

16.   The prior art made of record and not relied upon is considered

pertinent to applicant's disclosure:

> U.S. Patent 6,769,022 teaches monitor, managing and displaying
>
> the status of the storage devices.

17.   Applicant's amendment necessitated the new ground(s) of rejection

presented in this Office action. Accordingly, **THIS ACTION IS MADE**

FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of
time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to
expire THREE MONTHS from the mailing date of this action. In the event a
first reply is filed within TWO MONTHS of the mailing date of this final action
and the advisory action is not mailed until after the end of the THREE-
MONTH shortened statutory period, then the shortened statutory period will
expire on the date the advisory action is mailed, and any extension fee
pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the
advisory action. In no event, however, will the statutory period for reply
expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications
from the examiner should be directed to Mohammad A. Siddiqi whose
telephone number is (571) 272-3976. The examiner can normally be
reached on Monday -Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, John A. Follansbee can be reached on (571) 272-
3964. The fax phone number for the organization where this application or
proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained

from the Patent Application Information Retrieval (PAIR) system. Status

information for published applications may be obtained from either Private

PAIR or Public PAIR. Status information for unpublished applications is

available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business Center

(EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-

1000.

JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

MAS